CORE CONCEPT

Aircraft Component MRO Shop Management Course: Landing Gear, Wheels and Brakes, APU and LRU Repair

Aircraft Component MRO Shop Management Course: Landing Gear, Wheels and Brakes, APU and LRU Repair

Introduction:

Aircraft component MRO shop management, covering landing gear, wheels and brakes, APU and LRU repair, is a 1-week course for component shop, engineering and planning units that ends with a Component Shop Performance Improvement Plan for a case MRO. Repair shops lose customers and margin when units queue for parts, no fault found returns clog test benches and repairs drift from the component maintenance manual. Nominees already supervise, engineer or plan component repair work and learn through case studies built on shop records, test data and cost sheets. CoreConcept Training Center delivers this aircraft component MRO shop management course.

Course Objectives:

- Map the flow of removed line-replaceable units, landing gear, wheels, brakes and APUs from induction to release and set a current-state shop baseline
- Organise landing gear overhaul and wheel and brake shop work so that inspections, coatings and heat stack rebuilds follow the component maintenance manual
- Control APU teardown and LRU bench testing with repair versus replace rules, manual revision checks and traceable shop teardown reports
- Measure shop turnaround time and cost per repair, and set beyond economic repair thresholds for each component line
- Analyse no fault found returns and send MTBUR, MTBF and shop findings feedback to operator reliability units
- Prepare a Component Shop Performance Improvement Plan with turnaround, cost and NFF targets for a case MRO

Target Audience:

- Component shop management units responsible for workshop output, staffing and turnaround performance
- Shop engineering units responsible for repair schemes, manual revisions, test procedures and technical queries
- Production planning units responsible for induction priority, piece-part supply and bench loading
- Shop quality units responsible for release certificates, repair traceability and finding closure
- Component reliability units responsible for removal data, shop findings and feedback to operators

Course Outline:

Day 1: Component MRO Shop Landscape and Current-State Baseline

- Rotable, Repairable and Expendable Part Classes in Component Shops
- Line-Replaceable Unit Removal to Shop Induction Flow Map
- Shop-Replaceable Unit Strategy Inside LRU Repair Work
- Component Shop Capability List and Repair Approval Scope
- Current-State Shop Baseline Using Turnaround and Backlog Data

Day 2: Landing Gear Overhaul and Wheel and Brake Shop Practice

- Landing Gear Overhaul Intervals in Cycles and Calendar Time
- Oleo-Pneumatic Shock Strut Disassembly, Inspection and Servicing
- Gear Component Chrome Plating Removal and HVOF Coating Repair
- Wheel Eddy Current Inspection and Tyre Build-Up Bay Flow
- Carbon Brake Heat Stack Wear Pin Assessment and Rebuild

Day 3: APU Repair and LRU Bench Test Operations

- APU Power Section, Load Compressor and Gearbox Teardown Sequence
- APU Hot Section Shop Findings and Repair Versus Replace Decisions
- LRU Automatic Test Equipment Bench Test Procedure Control
- Component Maintenance Manual Revision Status and Repair Traceability
- Release Certificate and Shop Teardown Report Documentation

Day 4: Shop Turnaround, Cost per Repair, NFF and Reliability Feedback

- Shop Turnaround Time Breakdown From Induction to Release
- Cost per Repair Model With Labour, Material and Overhead
- Beyond Economic Repair Threshold and Scrap Decision Rules
- No Fault Found Root Cause Review and Test Coverage Gaps
- MTBUR and MTBF Reliability Feedback Report to Operators

Day 5: Case Study: Component Shop Performance Improvement Plan

- Case MRO Shop Data Review Across Four Repair Lines
- Case Bottleneck Analysis Using Turnaround and Queue Records
- Case NFF Reduction Actions and Bench Test Changes
- Case Cost per Repair Targets and Piece-Part Supply Actions
- Component Shop Performance Improvement Plan Completion and Defence

Skills You Will Gain:

- Shop Induction Flow Mapping
- Landing Gear Overhaul Control
- Wheel and Brake Shop Management
- APU Repair Decision Making
- LRU Bench Test Control
- Cost per Repair Modelling
- No Fault Found Analysis
- Component Reliability Reporting

Why Attend This Course:

- Deliver a Component Shop Performance Improvement Plan for a case MRO to the head of component maintenance and the production manager
- Decide whether a unit is repaired, overhauled, scrapped as beyond economic repair or returned after a no fault found test
- Avoid bench congestion, missed turnaround promises and repeat removals that tie up spares and raise cost per repair
- Share flow maps, cost per repair sheets, NFF review forms and reliability feedback templates with shop and planning colleagues

Conclusion:

Back at work, the participant hands the Component Shop Performance Improvement Plan to the head of component maintenance, the production manager and the shop quality lead. They use it to approve bench and staffing changes, piece-part supply actions, beyond economic repair thresholds and the NFF reduction steps for each repair line. Reliability units use its feedback format to receive shop findings. After the first quarter under the plan, the unit should compare turnaround time, cost per repair and NFF rates with the targets and revise them.

Frequently Asked Questions FAQ:

What should participants know before an aircraft component MRO shop management course?

Participants should already supervise, engineer, plan or inspect work in a component repair shop and read component maintenance manuals and shop records. Bringing anonymised turnaround, cost or test data from their own shop helps them apply the case work to their repair lines.

How does aircraft component MRO shop management differ from an engine shop visit or MRO business strategy course?

It concentrates on running repair shops for landing gear, wheels and brakes, APUs and LRUs: shop flow, bench testing, turnaround, cost per repair and NFF. Engine shop visit courses cover turbofan workscopes, while business strategy courses cover markets, licences and pricing.

Why does aircraft component MRO shop management treat no fault found returns as a cost problem?

A unit that passes the bench test after removal still uses induction, test time, paperwork and transport, and the real fault often stays on the aircraft. Repeat returns tie up spares and test benches, so reducing them lowers cost per repair and improves turnaround.

What do participants take back from the aircraft component MRO shop management course?

Participants take back a Component Shop Performance Improvement Plan for a case MRO, with a shop flow map, cost per repair sheet, beyond economic repair rules, NFF review form and reliability feedback template they can adapt to their own shop.